(19) **Japan Patent Office (JP)**

(11) Japanese Unexamined Patent Application Publication Number

H6-204108

(43) Publication date: July 22, 1994

(12) **Japanese Unexamined Patent Application Publication** (A)

(51) Int. Cl.[5]	Identification Symbol	Office Reference Number	FI	Technical indication location
H 01 L 21/027				
G 03 F 7/20	521	7316-2H		
G 05 D 3/00	X	9179-3H		
		7352-4M	H 01 L 21/30 301 Z	

Request for examination: Not yet requested No. of claims: 9 OL (Total of 6 pages)

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(54) Title of the invention: SEMICONDUCTOR EXPOSURE APPARATUS

(57) Abstract

Purpose: To provide an effective countermeasure for a medium scale earthquake.

Configuration: A semiconductor exposure apparatus which exposes and transfers a pattern, which is formed on the surface of a first object, on the surface of a second object directly or via an optical means has a sensor for earthquake detection for controlling the operation of the apparatus.

Scope of Patent Claims

Claim 1

A semiconductor exposure apparatus which exposes and transfers a pattern, which is formed on the surface of a first object, on the surface of a second object directly or via an optical means, the apparatus comprising:

a sensor for earthquake detection for controlling the operation of the apparatus.

Claim 2

The semiconductor exposure apparatus according to Claim 1, further comprising:

a means which directly stops the operation when the sensor detects an earthquake in operation.

Claim 3

The semiconductor exposure apparatus according to Claim 1, further comprising:

a transport means which inputs and outputs the first and second objects to and from the apparatus; and

a means which directly stops the operation of the transport means when the sensor detects an earthquake in operation.

Claim 4

The semiconductor exposure apparatus according to Claim 1, further comprising:

a position control means which holds the first and second objects to control the positions thereof; and

a means which directly stops the driving of the position control means and performs control for staying at a fixed position when the sensor detects an earthquake in operation.

Claim 5

The semiconductor exposure apparatus according to Claim 1, further comprising:

a means which warns of occurrence of an earthquake when the sensor detects an earthquake in operation.

Claim 6

The semiconductor exposure apparatus according to Claim 1, further comprising:

a means which stops the operation and issues an instruction to an operator to carry out an action necessary thereafter when the sensor detects an earthquake in operation.

Claim 7

The semiconductor exposure apparatus according to Claim 1, further comprising:

a means which stops the operation in order to store a state before the stopping and restarts the operation from the state of the stopping based on the stored data when the sensor detects an earthquake in operation.

Claim 8

The semiconductor exposure apparatus according to Claim 1,

wherein the operation is directly stopped when the sensor detects an earthquake in operation, and the operation is not restarted until a predetermined inspection by an operator is completed.

Claim 9

The semiconductor exposure apparatus according to Claim 1, further comprising:

a means which stops the process in the safest position state of a movable part and waits when the sensor detects an earthquake in operation.

Detailed Description of the Invention

[0001]

Industrial Field of Utilization

The present invention relates to a semiconductor exposure apparatus which is used in a manufacturing process of semiconductor devices such as ICs and LSIs, and particularly, to a semiconductor exposure apparatus in which an earthquake countermeasure is provided for rapidly restoring the apparatus to a normal operation without producing defective products even when external vibrations caused by a medium scale earthquake or the like are imposed during the operation of the apparatus.

[0002]

Prior Art

In the past, in semiconductor exposure apparatuses, various devices, such as increasing a bonding force of a connection portion and vibration-proof countermeasures which can maintain a predetermined performance normally despite vibrations in a general apparatus usage environment satisfying conditions of floor vibrations which are specified in the installation specifications, or conditions of floor vibrations which are considered individually for each installation place, and the like, have been devised.

[0003]

Problems to Be Solved by the Invention

However, in the past, countermeasures for preventing the production of defective products, ensuring apparatus safety, rapidly restarting a normal operation of the apparatus, and the like on the assumption that a medium scale earthquake with a seismic intensity of about 2 to 4 during which shaking is relatively large occurs during the operation (which is different from the transport and in a state without a fixing bracket or a buffer) of a semiconductor exposure apparatus have not been particularly devised. Accordingly, with respect to conventional vibration-proof countermeasures, a predetermined performance cannot be maintained and defective products are produced due to positional deviation of each portion in an exposure apparatus, which occurs as a result of vibrations (for example, 4 mm at 2 Hz, with a seismic intensity of 4, in some

cases) which cannot be eliminated by the conventional vibration-proof countermeasures in accordance with conditions such as the scale of the earthquake, occurrence timing and apparatus installation circumstances. Particularly, it is highly possible that a separately positioned portion (to be described in the embodiments of the present invention) in which no vibration-proof countermeasures are performed is positionally deviated. In addition, in recent years, a permissible value of the positional deviation has gradually reduced with microfabrication of a circuit pattern of semiconductor devices. Further, due to external vibrations caused by an earthquake, objects which are transported in exposure apparatuses fall and are broken, and due to broken pieces thereof, breakdowns or damage of apparatuses occur such as abnormal operation of a highly precise stage and the like or the breakage of a highly precise stage hit by a shock.

[0004]

An object of the present invention is to provide a countermeasure effective for a medium scale earthquake in a semiconductor exposure apparatus in view of the conventional problems.

[0005]

Means to Solve Problems

In order to achieve the object, according to the present invention, a semiconductor exposure apparatus which exposes and transfers a pattern, which is formed on the surface of a first object, on the surface of a second object directly or via an optical means includes: a sensor for earthquake detection and controlling the operation of the apparatus.

[0006]

In greater detail, the semiconductor exposure apparatus includes: a means which directly stops the operation when the sensor detects an earthquake in operation. For example, in the case in which the semiconductor exposure apparatus includes: a transport means which input and output the first and second objects to and from the apparatus, the apparatus includes a means which directly stop the operation of the transport means when an earthquake is detected. In addition, in the case in which the semiconductor exposure apparatus includes: a position control means which holds the first and second objects to control the positions thereof; the apparatus includes a means which directly stops the driving of the position control means and performs control for staying at a fixed position when an earthquake is detected. Further, the semiconductor exposure apparatus preferably includes: a means which warns of occurrence of an earthquake, a means which stops the operation and issues an instruction to an operator to carry out an action necessary thereafter, a means which stops the operation to store a state before the stopping and restarts the operation from the state of the stopping on the basis of the stored data, a means which stops the operation and does not restart the operation until a

predetermined inspection by an operator is completed, and a means which stops the process in the safest position state of a movable part and waits.

[0007]

Action

In this configuration, for example, when an acceleration sensor for earthquake detection which is provided in the exposure apparatus detects an earthquake, the exposure apparatus directly stops the operation temporarily and waits in a state in which the safety of the apparatus is ensured. After a user performs an inspection in accordance with instructed inspection items, the exposure apparatus recalls a state before the stopping from the memory and restarts the operation from the state. Accordingly, there is no need to carry out a large-scaled vibration-proof countermeasure or the like, and losses due to a medium scale earthquake, occurring only infrequently, leading to serious events including production of defective products and damage of the apparatus are prevented.

[0008]

Embodiments

Hereinafter, embodiments of the present invention will be described by using the drawings. Fig. 1 shows a semiconductor exposure apparatus according to an embodiment of the present invention. This semiconductor exposure apparatus is a projection exposure type which forms a pattern on a first object on a second object via an optical means such as a lens by projection exposure, and an acceleration sensor for earthquake detection which is a characteristic of the present invention is attached to the basic configuration thereof. In the drawing, the reference numeral 1 indicates a reticle which is the first object having a circuit pattern which is to be exposed and transferred in order to form a semiconductor device. The reference numeral 2 indicates a wafer which is the second object on which the circuit pattern of the reticle 1 is exposed and transferred. The reference numeral 3 indicates a projector lens which projects the pattern of the reticle 1 onto the wafer 2 at a predetermined reduced magnification. The reference numeral 4 indicates a laser which is an optical source. The reference numeral 5 indicates an illumination optical system which converts laser light from the laser into luminous fluxes having a predetermined size and a uniform illuminance. The reference numeral 6 indicates a wafer stage which positions the wafer 2 with high precision. The reference numeral 7 indicates a reticle library which stores several kinds of reticles 1. The reference numeral 8 indicates a reticle stage which holds and positions the reticle 1 when the pattern of the reticle 1 is exposed and transferred on the wafer 2. The reference numeral 9 indicates a reticle transport system which removes a desired reticle from the reticle library 7 to supply the reticle to the reticle stage 8 and stores an unnecessary reticle on the reticle stage 8 in the reticle library 7. The reference numeral 10 indicates a wafer

cassette which stores a plurality of wafers 2. The reference numeral 11 indicates a wafer transport system which removes an unexposed wafer 2 from the wafer cassette 10 to supply the wafer to the wafer stage 6 and collects an exposed wafer 2 from the wafer stage 6 to store the wafer in the wafer cassette 10. The reference numeral 12 indicates an alignment scope which measures positional deviation between the reticle 1 and the wafer 2. The reference numeral 13 indicates a vibration-proof device. The reference numeral 14 indicates an accelerometer for earthquake detection. The reference numeral 15 indicates a control operation portion which controls the operation of the exposure apparatus. The reference numeral 16 indicates a display which configures a part of the control operation portion 15. The basic configuration of the semiconductor exposure apparatus according to this embodiment is not much different from that of a conventional semiconductor exposure apparatus, except that the accelerometer 14 is attached thereto.

[0009]

Next, functions of this configuration which are the object of the present invention, that is, (1) eliminating defective products by the exposure apparatus, (2) preventing damage to the apparatus, and (3) quickly restarting the operation of the apparatus when an earthquake with a seismic intensity of about 2 to 4 during which shaking is relatively large occurs during the operation of the exposure apparatus will be described in that order.

[0010]

First, prevention of manufacturing of defective products will be described. It is thought that the positional relationship between a main body and a separately positioned portion which configures part of the main body and is separately installed on the floor is most easily subjected to the influence of vibrations caused by an earthquake. In this embodiment, the main body means the whole part which is supported on the mounts (vibration-proof device) 13. Meanwhile, here, the separately positioned portion includes the laser 4, the wafer cassette 10 and the wafer transport system 11. That is, the separately positioned portion is not on the mounts 13 and is separately positioned on the floor. In the main body portion, since vibrations caused by an earthquake are absorbed by a vibration-proof mechanism of the mounts 13, damage or destruction by positional deviation or a shock does not easily occur with respect to external vibrations caused by an earthquake. Further, since the mass of the apparatus is large enough to be in the range of 2 to 30 tons, positional deviation by an earthquake occurs only slightly.

[0011]

Although the separately positioned portion does not give rise to positional deviation with the main body portion in a floor vibration state which is shown in a normal usage state, that is, apparatus installation standards, when vibrations exceeding the

normal usage state are applied by a medium scale earthquake, the positional relationship between the main body portion and the separately positioned portion cannot be necessarily secured because the vibration-proof mechanism of the separately positioned portion is not necessarily sufficient as in the main body portion and the mass of the separately positioned portion is small. In the installation standards, for example, at 2 Hz, about up to 1 gal is secured. However, in some cases, about 80 gal of acceleration is applied in an earthquake with a seismic intensity of 4. The laser 4, the wafer carrier 10 and the wafer transport system 11 which are the separately positioned portion in this embodiment are not limited to the main body portion or the separately positioned portion in another case. However, for example, the laser 4 is installed so as to be separated from the main body and separately positioned in many cases in order to efficiently utilize the space in a room (clean room) which has a high maintenance cost, in consideration of safety due to the using of a toxic gas or to allow conditions with a constant temperature or with no dust. Despite this, it has been required to strictly manage the positional relationship between the laser 4 and the illumination optical system 5 on the main body in order to respond to demands for microfabrication of a circuit pattern in recent years. For example, the illumination by the light from the illumination system 5 is required such that a difference in illuminance between positions in an effective range thereof is in the range of ± 1 to 2%, and in order to realize this, the positional deviation between the main body portion and the separately positioned portion is less than or equal to about 0.5 mm.

[0012]

However, providing a dedicated vibration-proof mechanism or increasing rigidity by increasing in size only for an earthquake occurring only infrequently leads to an increase in costs and is thus not suitable. Accordingly, the accelerometer 14 which detects an earthquake is provided in the apparatus main body or the separately positioned portion to temporarily stop the operation of the apparatus when acceleration greater than or equal to a value which is decided particularly with reference to the installation circumstances of the separately positioned portion is detected, and thus the exposure apparatus is prevented from producing abnormal chips and from lowering productivity. The operation of the apparatus is not restarted until a check of inspection items, that is, a check of the positional deviation between the laser 4 and the main body portion is completed. As already mentioned, the ideal apparatus is an apparatus in which the positional relationship between the apparatus main body and the separately positioned portion is not distorted when an earthquake even with large shaking occurs. However, earthquakes accompanied by large shaking distorting the above-described positional relationship are limited, and making an apparatus structure which can cope with all the situations leads to increasing in size of the apparatus and an increase in costs.

Accordingly, in the present invention, an earthquake countermeasure can be provided which prevents production of defective products by temporary stopping when an earthquake accompanied by large shaking which cannot be ignored but does not frequently occur occurs, but is carried out at low cost because of consideration of shortening of time to recovery (to be described later).

[0013]

In Fig. 1, an example is shown in which the laser is used as an optical source. However, also in the case in which an ultrahigh pressure mercury lamp, which is most often used, is used as an optical source, the same effect is expected. Fig. 2 is an example when an ultrahigh pressure mercury lamp 22 is used as an optical source. In the example of Fig. 2, the ultrahigh pressure mercury lamp is stored in a lamp house 21 which is separately positioned as in the case of the laser 4. In the past, the lamp house, which is a place for storing a lamp, was formed integrally with the illumination system 5 and was not separately positioned. However, as an improvement in performance of the exposure apparatus is required, an influence of the heat from the lamp house which is emitted from the mercury lamp on the temperature conditions of the exposure apparatus cannot be ignored, and thus in some cases, the lamp house is separately positioned as in this example.

[0014]

In Fig. 1, the wafer carrier 10 and the wafer transport system 11 are shown as other examples of the separately positioned portion other than the optical source. In this case also, the wafer transport system 11 or the like is not necessarily separately positioned. However, when this is separately positioned, it is considered that the transport of a wafer may be stopped by the positional deviation of the wafer transport system. This does not lead to the production of defective chips, but is a major problem directly linked to the productivity of the apparatus. Accordingly, when an earthquake occurs, it is desirable to surely check whether any problem exists or not in each case as in the problem of performance. In addition, even when the wafer carrier 10 is configured in the main body portion, the wafer carrier is delivered by an automatic transport robot in many cases with automation of a production line in recent years, and thus the positional relationship with a robot movement line is also considered.

[0015]

Another cause of the possibility of manufacturing defective products is deterioration in alignment precision of the reticle 1 and the wafer 2. In the apparatus of Fig. 1, the positioning of the wafer 1 is performed in a manner such that the alignment scope 12 confirms the position of the wafer 1 and the wafer stage 13 sends the wafer to a predetermined position. Meanwhile, the reticle 1 is also positioned by the reticle stage 8

and an alignment scope (not shown). With microfabrication of semiconductor devices in recent years, 0.1 μm-level positioning is required, but according to the mounts 13 which are vibration-proof devices, shaking of about 4 mm remains on the main body in some cases in an earthquake of about 2 Hz with a seismic intensity of about 4. These are numerical values which clearly cannot be ignored. Accordingly, when an earthquake is detected, positioning or exposure is directly stopped and the apparatus enters a waiting state.

[0016]

The place at which an acceleration sensor is attached may be under the mount 13 of the main body to which vibrations of the floor are directly carried, or may be separately positioned.

[0017]

Next, a method of preventing damage to the apparatus will be described. As a possibility of damaging the apparatus due to shaking occurring due to an earthquake, consideration must be given to when objects which are transported fall and broken pieces thereof affect the apparatus. In the case of the apparatus of Fig. 1, upon the exposure, a wafer 2 is removed by a hand of the wafer transport system 11 from the wafer carrier 10 containing the wafer 2 before the exposure process of the exposure apparatus and is roughly positioned by a positioning mechanism (not shown). Then, the wafer 2 is placed onto the wafer stage 6 which positions the wafer with high precision. The alignment scope 12 confirms the position of the wafer 2 which is placed onto the wafer stage 6 and then the wafer is moved to a predetermined position to be subjected to the exposure. After that, the wafer is stored again in the wafer carrier 10 by the wafer transport system 11.

[0018]

Here, in general, as shown in Fig. 3, the wafer 2 is held by a hand 30 in a manner such that the reverse side of the wafer is suctioned by a vacuum suction method via a vacuum suction groove 36. When the wafer 2 is transferred to the wafer stage 6 from the hand and when hand-to-hand transfer, such as transfer of the wafer 2 to a hand 32 from a hand 31, is performed as shown in Fig. 4, the vacuum suction of the hand on the transfer side is released after confirmation of the vacuum suction of the hand on the reception side. As long as this vacuum suction is normally performed, the hand does not drop the wafer 2. However, when such transfer is performed during the shaking occurring due to an earthquake, a risk of fall of the wafer 2 clearly increases. Under such conditions, the possibility of the wafer falling is low. However, when considering the time, effort and cost required for recovery for the case in which the wafer falls on the highly precise wafer stage 6 or the like by any chance, the wafer 2 falling is an occurrence which should

be avoided. Accordingly, at the time when the accelerometer 14 for earthquake detection detects acceleration which is greater than or equal to a set value, the transfer of the wafer 2 is directly stopped and the apparatus waits until the holding of the wafer is secure.

[0019]

Also in the case of a reticle 1, the same process is performed. The movement of the reticle 1 is almost the same as in the case of the wafer 2. From the reticle library 7 which stores a plurality of reticles 2, a predetermined reticle 1 is removed by the reticle transport system 9 and the reticle 1 is supplied to the reticle stage 8 which holds and positions the reticle 1. The reticle 1 which is supplied to the reticle stage 8 is positioned and then subjected to the exposure by the illumination optical system 5. After the exposure, the reticle 1 on the reticle stage 8 is stored again in the reticle library 7 by the reticle transport system 9. As in the case of the wafer 2, the reticle holding method is performed in almost the same manner such that a hand of the reticle transport system 9 suctions the reverse side of the reticle. However, when stored in the reticle library 7, the reticle 1 is stored in a case (not shown) capable of storing the whole reticle 1 in order to prevent adhesion of dust to the reticle 1. As in the case of the wafer 2, when hand-to-hand transfer is performed and when transfer is performed to the reticle stage 8 by hand, the possibility of the reticle 1 falling during the transport is higher. Although the possibility of the reticle falling is also not as high as in the case of the wafer 2, the damage to the reticle stage 8 or the like due to the reticle falling is enormous as in the case of the wafer 2. Accordingly, when there is a possibility of the reticle falling due to an earthquake, the transport and transfer of the reticle is directly stopped and the apparatus waits in a safe state.

[0020]

In this manner, in order to eliminate the damage to highly precise objects such as the wafer stage 6 and the reticle stage 8 by falling and damaging of transport objects such as the reticle 1 and the wafer 2, the dangerous transfer and transport of transport objects are directly stopped when the accelerometer 14 detects an earthquake and the apparatus enters a waiting state.

[0021]

Next, prevention of damage to the movable part will be described. A case of the wafer stage 6 which requires highest precision among the movable parts will be described. Basically, the wafer stage 6 is a highly precise stage having a triaxial structure of X, Y and Z, and in the X and Y directions, position control is performed with high precision by a laser interferometer. The control by the laser interferometer has followability with respect to up to the vibration of about 10 Hz, and when a general earthquake is thought to be about 2 Hz, the wafer stage 6 is rapidly stopped in accordance

with the detection of the earthquake and may be continuously stopped at that position by performing the position control. Through this, the wafer stage 6 is hit and moved by an excitation force caused by the earthquake and thus the end portions thereof can be prevented from colliding and being damaged. When the wafer stage 6 is a highly precise air-floating stage and the position control by the laser interferometer cannot be performed, the air may wait in situ. The reason is that the air acts as a buffer. Regarding the Z direction, a driving mechanism uses a piezoelectric device or a gear row in many cases and has a relatively strong structure with respect to external vibrations. In addition, since the stroke in the Z direction is small, the position control may not be performed.
[0022]

Finally, the early restart of the operation will be described. As described above, when an earthquake occurs, the operation of the apparatus is stopped in order to prevent the production of defective products and the apparatus is stopped until the check of predetermined inspection items is completed. Accordingly, how rapidly the operation can be restarted is an important point. Whether the time can be shortened or not is decided depending on how rapidly each confirmation item can be checked. This embodiment is based on the assumption that the check items are not automatically checked but checked by a user of the apparatus, so the items to be checked are sequentially displayed on the display 16 of the control operation portion 15 such that the user of the apparatus can quickly know what and how to check. It is thought that the reason is that since the state in which the apparatus is stopped by an earthquake is unusual, and the operation for this state is different from the user's operation which is performed on a regular basis and is low in use frequency, the user does not quickly know how to operate in order to restart the operation of the apparatus. Even if the earthquake countermeasure is written in an instruction manual, even the existence of the instruction manual is easily forgotten if there is no experience to use it. That is, the earthquake countermeasure which is the object of the present invention is thought to be only an unusual case. Accordingly, the fact that the apparatus is in a waiting state is displayed and informed on the display 16 (a sound may be emitted) and an instruction for the work necessary to restart the operation is issued in a manner easy to understand. The display 16 may be in common with a display which is used in the normal apparatus operation and there is no need to provide a new one. As shown in Fig. 5, the contents to be displayed are sequentially displayed as follows.

"Please confirm the axial deviation with the optical source. The method is as follows. Please push the confirmation button when the operation is completed."

"Next, please confirm the position of the wafer transport system. The method is as follows. Please push the confirmation button when the operation is completed."

[0023]

Upon the confirmation and the adjustment, the mechanism which is used at the time of the installation of the apparatus or the adjustment of the plant may be used as is and there is no need to provide a new one.

[0024]

As a function for restarting the operation, there is provided a function of storing the state of the wafer 2 and the reticle 1 at the time of the start of waiting in the memory of the control operation portion 15 and restarting the operation from the state at the time of the stopping. Accordingly, there is no need to unnecessarily replace the reticle 1, and the same applies in the case of the wafer 2. However, since the wafer 2 and the reticle have just received the shaking occurring due to an earthquake, the operation is restarted after performing the alignment once again.

[0025]

The function of the earthquake countermeasure of the present invention can be stopped by inputting a command from the control operation portion 15. In addition, as the acceleration sensor, a dedicated sensor may not be provided and an acceleration sensor for another purpose in the apparatus may be used in common. However, in that case, it is necessary to obtain in advance the relationship between the vibrations of the floor and the acceleration which is detected by the common sensor. Further, in the above description, a user of the apparatus checks the items. However, for example, a mechanism which can automatically perform the alignment between the main body portion and the separately positioned portion may be provided such that the apparatus partially or wholly confirms and further corrects the influence of the earthquake automatically.

[0026]

Here, the description has been given by taking the exposure apparatus as an example. However, the present invention is not limited to the exposure apparatus and it is obvious that the present invention can also be applied to various examination apparatuses and process-related apparatuses.

[0027]

Advantage of the Invention

As described above, according to the present invention, in a semiconductor exposure apparatus, a sensor for earthquake detection is provided for controlling the operation of the apparatus. Accordingly, when the sensor detects an earthquake, the apparatus temporarily stops the operation and waits in a safe state, and thus even when a medium scale earthquake with a seismic intensity of about 2 to 4 occurs, production of

defective products is prevented and safety of the apparatus can be protected. In addition, there is no need to carry out a large-scaled vibration-proof countermeasure or the like.

Brief Description of the Drawings

Fig. 1

Fig. 1 is an overall configuration diagram of a semiconductor exposure apparatus according to an embodiment of the present invention in which an acceleration sensor for earthquake detection is attached.

Fig. 2

Fig. 2 is an overall configuration diagram of an example in which an optical source is changed from a laser to an ultrahigh pressure mercury lamp in the apparatus of Fig. 1.

Fig. 3

Fig. 3 is a perspective view showing a method of holding a wafer by a hand for transport in the apparatus of Fig. 1.

Fig. 4

Fig. 4 is a perspective view showing a method of transferring a wafer to a hand for transport from a hand for transport in the apparatus of Fig. 1.

Fig. 5

Fig. 5 is a schematic diagram showing an example in which a display displays "check items and the contents thereof" in the apparatus of Fig. 1.

Description of Symbols

1 RETICLE
2 WAFER
3 PROJECTOR LENS
4 LASER
5 ILLUMINATION OPTICAL SYSTEM
6 WAFER STAGE
7 RETICLE LIBRARY
8 RETICLE STAGE
9 RETICLE TRANSPORT SYSTEM
10 WAFER CASSETTE
11 WAFER TRANSPORT SYSTEM
12 ALIGNMENT SCORE
13 VIBRATION-PROOF DEVICE
14 ACCELERATION SENSOR FOR EARTHQUAKE DETECTION
15 CONTROL OPERATION PORTION
16 DISPLAY

21 LAMP HOUSE
22 ULTRAHIGH PRESSURE MERCURY LAMP
30 HAND
31 HAND (TRANSFER SIDE)
32 HAND (RECEPTION SIDE)

[Fig. 5]

THIS MECHANISM IS IN A WAITING STATE DUE TO THE DETECTION OF AN EARTHQUAKE.

PLEASE CHECK AN OPTICAL AXIS.

AS THE CHECK METHOD, PLEASE CONFIRM WHETHER THE CENTER OF THE LIGHT IS AT THE CENTER OF THE CROSS LINE OR NOT.

PLEASE PUSH THE CONFIRMATION BUTTON WHEN THE OPERATION IS COMPLETED.